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## REMARKS

Applicants have amended the above application to place it in clear condition for allowance. Specifically the independent claims have been strengthened to more precisely reflect the technology described in Applicants' Sound Annotation System. For example, the following concept has been added to the independent claims: When a marker of sound or glyph is reached during the playback of a sound stream, the user can select whether they want to listen to the sound annotation or not. Previously this concept was included in a dependent claim.

### **The Rejection of Claims 1-4, etc. On Daberko, Matthews, and Balasubramanian Under §103 Is Overcome**

These claims were rejected as unobvious over Daberko et al (Daberko), Matthews, and Balasubramanian et al (Bala). While applicants believe that their Sound Annotation System as claimed was novel and unobvious over these patents, these claims have been replaced with new claims 32 to 59 to define Applicants' Sound Annotation System even further over the references.

### **Applicants' Sound Annotation System**

Applicants' Sound Annotation System improves communication and collaboration. It works with recorded streams of sound. Once a stream of sound has been captured, annotations of sound concerning the stream of sound can be added at positions of interest or relevance. A marker of sound or glyph is logically or physically inserted in the stream of sound to identify the location of the annotation of sound. The marker of sound or glyph points to or links with the annotation of sound, which adds additional information concerning the stream of sound at the point of interest or relevance. The annotation is also captured and can convey any information desired, for example, to add description, provide evidence, challenge validity, ask questions, etc. Any form or frequency of sound can be utilized with the stream of sound, the marker of sound or glyph, and or the

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annotations of sound. Applicants' Sound Annotation System also consists of and has the following advantages:

- **Selectable Use.** When a marker of sound or glyph is reached during playback, the system is paused and users have the opportunity to select whether they want to listen to the associated annotation of sound or not. This allows users to listen only to the annotations of sound that are interesting, relevant, or appropriate to them. This greatly improves the likelihood that the communication or collaboration will take place. Users only have to listen to the information that is appropriate, relevant, or interesting to them.
- **Security Protection.** The system can create, select, and playback classified and unclassified information. This means that the streams of sound and annotations of sound can include all information that is interesting and important to the company, group, or individual users involved with the communication and collaboration.
- **Distribution and Access.** The system can distribute and provide access to the streams of sound and annotations of sound to users involved with the communication and collaboration. This means that the streams of sound and the annotations of sound are available to only those users who are authorized to have access to them.
- **Sound Annotation Nesting.** As previously described, annotations of sound are linked at appropriate or relevant places within a stream of sound. Because these annotations of sound are also streams of sound, additional annotations of sound also can be inserted in them at appropriate or relevant places. This allows for sound annotation nesting, a hierarchy of streams of sound and annotations of sound to be created and played back. This forms a very flexible structure of streams of sound and sound annotations and further enhances communication and collaboration because the user only has to listen to the information that is interesting, relevant, or appropriate to them.
- **Full Sound Spectrum.** The system can include all sound, whether it is above, within, or below the threshold of sound that is heard by the human ear. If the

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sound is outside the range of human hearing, the system can detect an important, relevant, or appropriate sound and can generate annotations of sound for communication with humans. This means that streams of sound and annotations of sound can include all sound, below, within, and above the range of human hearing.

- **Navigational Capabilities.** Because the system provides the identification of markers of sound or glyphs during playback, the user has the option of listening to the stream of sound or skipping to the next marker of sound or glyph. The system also provides for the capability of skipping to the end of the annotation of sound if the user decides she no longer wishes to listen to the annotation of sound. These navigating capabilities further allow users to listen only to the information that is interesting, relevant, or appropriate to them.
- **System Tailoring.** The system can be tailored by system administrators and users as appropriate through the use of administrator-defined and user-defined operational parameters. This allows administrators and users to define how the system is used to enhance communication and collaboration for their specific situation and needs.
- **Unidirectional and Bidirectional Communication and Collaboration.** The system provides support for unidirectional and bidirectional communication and collaboration. Unidirectional implies that one person or group is providing information to users. The creating person or group does not want or solicit feedback, questions, or replies using the system. Bidirectional implies that both the creating person or group, and the users are involved in the communication or collaboration. Users have the capability to create annotations of sound that are linked to the stream of sound. If allowed by the operational parameters of the system, any user has the capability to create and distribute or grant access to an original stream of sound. This means that the system offers considerable flexibility, efficiency, and capability to enhance communication and collaboration.

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### **Daberko et al (Daberko)**

Daberko provides a method for inserting a new message within a previously recorded message. At a point in the previously recorded message the first pointer is created. The first pointer points to the new message that is to be inserted into the previously recorded message. The new message is physically placed at the end of the previously recorded message. At the end of the new message a second pointer is created that points back to a position just after the first pointer that was placed in the previously recorded message. By following the pointers during playback the previously recorded message along with the new message is seamlessly heard by the user.

Daberko describes but one method of inserting messages within other messages. There are other methods for inserting messages within messages: for example, 1) the insertion of the new message can be accomplished by timing from the start of the original message to a point when the new message is to begin, and 2) the original message along with any new messages can be copied creating a combined message with the new messages inserted at the correct places in the combined message.

Applicants' Sound Annotation System, on the other hand, inserts the markers of sound or glyphs in the original message. These markers of sound or glyphs point to a separate message, a sound annotation. When the marker of sound or glyph is reached during playback, the system is paused, giving the listener the option of selecting to listen to the sound annotation or not.

The operation and usage of the message insertion in Applicants' Sound Annotation System is quite different from Daberko's. In Daberko, the message and any inserted messages are seamlessly heard without awareness by the user that one or more new messages have been inserted. In Applicants' Sound Annotation System, the system is deliberately paused when the inserted marker of sound or glyph is reached during playback to allow the user the opportunity to select whether they want to listen to the associated annotation of sound or not.

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The usage of message insertion is very different in Applicants' Sound Annotation System. The scope of Daberko is quite limited as compared to the system scope and flexibility provided by Applicants' Sound Annotation System. Daberko has no concept of markers of sound or glyphs which identify the presence of an annotation of sound. In Applicants' Sound Annotation System, when a marker of sound or glyph is reached during playback, the user can select whether to listen to the annotation of sound. For other advantages associated with markers of sound and the associated annotations of sound refer to the section "Applicants' Sound Annotation System" above.

#### Matthews

Matthews provides a method for inserting a marker in audio data. The system copies the audio data, translating it to a digital format from the recorded analog format. A listener can pause the system at an appropriate spot while listening to the analog recording. At that point, by pressing a predefined key, the user can cause a marker to be added to the digital copy. This marker can be a topic marker, a section marker, or a time and date stamp. When the recording is played back, after being translated back to the analog form, the markers can be heard.

Matthews's use of markers is quite limited. The markers only identify, for the listener, the point where the topic, section, or time and date stamp markers have been placed. For example, there is no capability for the users to identify what they want the sound content of the markers to be and there is no added meaning to the markers themselves. There is no concept of using the markers to offer a selection to optionally listen to other information concerning the recorded audio data.

The marker of sound or glyph that is inserted by Applicants' Sound Annotation System is much broader in concept as compared to Matthews. In Applicants' Sound Annotation System, the marker of sound or glyph can be any sound which in itself can have significant meaning. The marker of sound or glyph can provide novel and relevant

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information to a user simply by listening to the marker of sound or glyph. Note that the marker of sound or glyph can consist of any sound, for example, music, beeps, tones, human voice, etc. Users of Applicants' Sound Annotation System can define the markers of sound or glyphs to have special meaning for them. For example, 1) the markers of sound or glyphs can provide information about topics, subjects, departments, projects, dates, etc., 2) the markers of sound or glyphs can be a single beep denoting a sound annotation at the highest level in the hierarchy of sound annotations, and two beeps at the second level of the hierarchy, etc., 3) the markers of sound or glyphs themselves can be a very brief summary of the sound annotation to which it points, etc. Any of the above usage of markers of sound or glyphs adds significant value and efficiency as the basis for users selecting to listen to the annotation or not.

#### **Balasubramanian et al (Bala)**

Bala provides a method for segmenting audio data by the speakers who have been recorded. Using algorithms, each speaker is identified and the audio data can be identified for each speaker. Indexes are created to identify segments for each of the speakers.

Applicants' Sound Annotation System is quite different from Bala's. Although Bala identifies speakers, Bala does not add or provide for the addition of any information concerning the audio data. Its scope is limited to identifying each speaker and providing indexes for the audio recording for each of the speakers. In Applicants' Sound Annotation System, sound annotations may be created by the users of the system. Sound annotations can provide additional valuable, interesting, relevant, and appropriate information about the streams of sound. For example, 1) the additional information can be further details about the contents of the stream of sound, 2) the additional information can be a request for additional details about the stream of sound, 3) the additional information can be agreement or disagreement with the relevant content of the stream of sound, etc.

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Bala provides indexes for unidirectional communication. No new information is added by users. With Applicants' Sound Annotation System, the markers of sound or glyphs and sound annotations can be created by the group or individual creating the sound information or by the listeners of the sound information. Applicants' Sound Annotation System therefore supports bidirectional as well as unidirectional communication and collaboration whereas Bala is limited to unidirectional communication.

Bala is limited to identifying segments associated with a speaker. Applicants' Sound Annotation System provides markers of sound or glyphs which are associated with annotations of sound. Bala lacks this feature. For a discussion of the advantages offered by availability of markers of sound or glyphs and the associated annotations of sound, refer to the section "Applicants' Sound Annotation System" above. The scope and flexibility of Bala is quite limited as compared to Applicants' Sound Annotation System.

## **Applicants' New Claims Are Patentable Over The References Individually**

Although the applicants recognize that these claims were rejected on a combination of three references, it is first worth noting that their new claims are patentable over Daberko, Matthews, and Bala individually for the following reasons:

1. Applicants' independent claims recite novel subject matter over Daberko because they recite that markers of sound or glyphs inserted in a recorded stream of sound, and annotations of sound that are linked to the markers of sound or glyphs. Daberko provides only the insertion of a new message within a recorded message and does not insert any marker of sound or glyph into a recorded message, any sound annotation or any user-operable link between the marker of sound or glyph and the sound annotation. Refer to the section "Daberko" above. The novel features of Applicants' Sound Annotation System allows one to pause Applicants' Sound Annotation System when a marker of sound or glyph is reached during playback so that the user can select whether to listen to the associated annotation of sound. For a more detailed discussion of these and other

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capabilities offered by Applicants' Sound Annotation System refer to the section "Applicants' Sound Annotation System" above.

2. Applicants' independent claims recite novel subject matter over Matthews because Matthews only inserts markers into audio data but does not provide any capability regarding the markers other than allowing the user to listen to them during playback. Refer to the above section "Matthews" above. Applicants' Sound Annotation System creates a marker of sound or glyph inserted into recorded streams of sound and a link with an annotation of sound. The novel features of Applicants' Sound Annotation System allow users to select whether they choose to listen to the associated annotation of sound. For a more detailed discussion of these and other capabilities offered by Applicants' Sound Annotation System refer to the section "Applicants' Sound Annotation System" above.

3. Applicants' independent claims recite novel subject matter over Bala because Bala only identifies and indexes segments from audio data by speaker but does not insert any marker of sound or glyph into a recorded message, any sound annotations, or any user-operable link between the marker of sound or glyph and the sound annotation. Refer to the section "Bala" above. The novel features of Applicants' Sound Annotation System allow users to select whether they choose to listen to the associated annotation of sound. For a more detailed discussion of these and other capabilities offered by Applicants' Sound Annotation System refer to the section "Applicants' Sound System" above.

4. This novel subject matter in Applicants' Sound Annotation System produces new and unexpected results and is therefore unobvious over each of the references. The unexpected results are:

- **Pause-ability and Opportunity to Hear Annotation.** When a marker of sound or glyph is reached during playback of a stream of sound, the system can pause the playback and allow the user the opportunity to select whether the associated annotation of sound is interesting, relevant, or appropriate for the user.



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- **Sound Annotation Nesting.** Because annotations of sound are also streams of sound, further annotations of sound can also be added to them thereby creating sound annotation nesting or a hierarchy of streams of sound and annotations of sound and further reducing the sound information that is interesting, relevant, or appropriate for a user to listen to.
- **Navigational Capabilities.** Because the system provides the capability of identifying markers of sound or glyphs, the system can skip to the next marker of sound or sound glyph without listening to the intervening stream of sound or can skip to the end of an annotation of sound, thereby providing flexibility and efficiency.
- **System Tailoring.** Because of the flexibility of the basic constructs, the system is able to provide for system administrators or users, if appropriate, to tailor the system through user-defined operational parameters thereby tailoring the system to meet user needs and requirements.
- **Unidirectional and Bidirectional Communication and Collaboration.** Because of the flexibility of the basic constructs, the system is able to provide for both unidirectional and bidirectional communication and collaboration.
- **Security Protection, and Distribution and Access.** Because of the flexibility of the basic constructs, the system is able to provide for inclusion of security for inclusion of both classified and unclassified information, and the authorized distribution of or access to the streams of sound along with the appropriate annotations of sound to authorized users.

## Applicants' New Claims Are Patentable Over The References As Proposed To Be Combined

Applicants submit that all of their new claims are patentable over the proposed combination of the above three references because:

1. There is no legal justification for combining the references
2. The references can't be physically and operatively combined

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3. Even if the references could be legally and physically combined, applicants' claims would still recite novel subject matter over the combination. and
4. Applicants' novel subject matter produces new and unexpected results and is therefore unobvious.

# **1. There is no legal justification for combining the references.**

**There is no reason in Daberko, Matthews, and Bala to suggest their combination, i.e., there is no prima facie case of obviousness to support the proposed combination.**

Applicants submit that the rejection on Daberko, Matthews, and Bala is improper since the rejection does not state any *prima facie* case of obviousness to support the proposed combination, and there is none in fact. As stated in MPEP §§ 2142 and 2143, for a rejection on a combination of references to be valid, the rejection must provide a *prima facie* case of obviousness. The MPEP states that a *prima facie* case of obviousness requires three elements:

- a. The References Themselves Must Suggest or Motivate the Combination
- b. An Expectation of Success Must Exist
- c. The References Must Teach or Suggest All of the Claim Limitations.

## **a. The References Themselves Must Suggest or Motivate the Combination**

As stated, there must be some suggestion or motivation *in the references themselves* or in knowledge generally available to combine their teachings. The present rejection does not state any such teaching or knowledge and the references themselves contain none.

## **The Daberko, Matthews, and Bala Combination Is Not Justified**

Daberko only provides a method for inserting a new message within a previously recorded voice message. Mathews only inserts markers for identification of sections or topics during recording audio data. Bala only identifies segments by individual speakers. Each of these systems is complete and operative by itself and contains no suggestion or

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reason to selectively take parts of any reference and combine it with part of others to come up with applicants' novel system.

Daberko, Matthews, and Bala are complete within themselves. Daberko, Matthews, and Bala are solving different problems and there is no suggestion that combining them would strengthen any of them. Combining Daberko, Matthews, and Bala is not logical conceptually or in an implementation.

Just because the three references identify inserting a message within a message, inserting a marker into audio data, and identifying indexes to segments of individual speakers, the references do not justify or teach selectively combining them as proposed. Combining the three references is not taught by the references themselves, any other reference, and is not logical conceptually.

Since there is absolutely nothing in these references, or in the art generally, to suggest that they be combined, applicants submit that one skilled in the art, even if they had the three references before them, which are individually independent and complete, would have no reason to combine them.

It is elementary in patent law that, in order for two or more references to be combined to meet a claim, there must be some teaching or reason stated in or implied from the references themselves to suggest the combination. Here the prior-art references do not contain any suggestion that they be combined, or that they be combined in the manner suggested.

The need for the prior-art references themselves to suggest that they can be combined is well known. E.g., as was stated in *In re Sernaker*, 217 U.S.P.Q. 1, 6 (CAFC 1983):

"[P]rior art references in combination do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from combining their teachings."

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That the suggestion to combine the references should not come from applicants was forcefully stated in *Orthopedic Equipment Co. v. United States*, 217 U.S.P.Q. 193, 199 (CAFC 1983):

"It is wrong to use the patent in suit [here the patent application] as a guide through the maze of prior art references, combining the right references in the right way to achieve the result of the claims in suit [here the claims at issue]. Monday morning quarterbacking is quite improper when resolving the question of non-obviousness in a court of law [here the PTO]."

As was stated in *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 5 U.S.P.Q.2d 1434 (CAFC 1988), "[w]here prior-art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself ... Something in the prior art must suggest the desirability and thus the obviousness of making the combination."

Again, the law is clear: where there is no teaching (express or by implication) in the references themselves to suggest their combination, the Examiner may not reconstruct the prior art to meet applicants' combination by selecting the needed elements from each reference to meet the claimed combination.

It is actually the DUTY of the Examiner to explain why the combination of the teachings is proper, without using applicants' own disclosure. MPEP 2142; *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986). Here the OA clearly has not fulfilled this duty.

The only relevant statements in the Office Action (OA) are those such as found on p. 3 where the OA states, "Therefore it would have been obvious ... [to combine Dabenko with Matthews]. However this statement is a non-sequitur because the preceding paragraphs of the OA fail to provide any such *prima facie* case or knowledge. The OA

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merely states (p. 3) that Dabenko and Matthews show parts of applicants' combination, but this fact above does not justify the combination. The references themselves or the art generally must contain some actual teaching or suggestion to make the combination.

Also, the fact that *the combination provides advantages* does not justify the combination, but actually militates against it and in applicants' favor. I.e., the fact that a new combination provides an advantage does not prove that it would be obvious to make that combination, but rather it proves just the opposite: Where old references which themselves do not suggest their combination are combined and the combination yields substantial advantages, that proves that the combination has new and unexpected results and is therefore *unobvious*. In other words, **the above paragraphs from the OA actually support applicants' contention that his system is not obvious.**

Again, note that the OA does not refer to any place in **Daberko, Matthews, or Bala** that indicates that it would be obvious to combine these references, but actually admits that the unsuggested combination has substantial advantages.

It is hornbook patent law that when a combination provides new, valuable, and unexpected results like this, it indicates that the combination is indeed *unobvious*. Thus the significant and important advantages of applicants' novel combination that the OA lists clearly show that the combination of Daberko and Mathews is in fact *unobvious*.

#### **b. An Expectation of Success Must Exist**

There must be a reasonable expectation of success from making the combination. Here there is none since the three systems are so different that they could not be combined or substituted. I.e., **Daberko's system** is designed to work only as an apparatus for inserting new messages within other messages, **Matthews's system** is designed as an apparatus to only insert markers that can only be heard during playback, and **Bala's system** is designed as an apparatus to only identify indexes to segments of individual speakers. If

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an audio engineer had these references before her, she would not be at all led to combine them absent applicants' teachings.

**c. The References Must Teach or Suggest All of the Claim Limitations.**

Here none of the references teaches all of the above claim limitations. Specifically neither **Daberko, Matthews, nor Bala** teaches any audio annotating system, as claimed. Applicants' claims recite that markers of sound or glyphs are inserted into streams of sound at the relevant position with the streams of sound and the markers of sound or glyphs link with appropriate annotations of sound. **Daberko simply inserts new messages within other messages, Matthews simply inserts markers during the translation of the analog information to digital information, and Bala simply identifies indexes to segments of individual speakers. Thus none of the references teach or show what the applicants' claims recite.** The novel features of applicants' claims over the combination are listed in more detail below.

Since the OA does not provide the three elements (points a-c above) required for a *prima facie* case of obviousness to support the proposed combination, applicants submit that there is clearly no *prima facie* case of obviousness or justification for combining these disparate references. Again, the law clearly and explicitly requires that the Examiner provide a *prima facie* case of obviousness for combining references.

Here the references themselves actually teach away from the suggested combination, since each is complete in and of itself and is so different from the other. Applicants thus submit that one having ordinary skill in the art, even if the references were before them, would be led not to combine them because of their individual completeness.

If the rejection is based on these references, applicants respectfully request that the Examiner state some reasons that support a *prima facie* case of obviousness, as required by MPEP §§ 2142 and 2143. I.e., where in the references themselves or in the art generally (without using applicants' disclosure) do they suggest that they be combined?

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Applicants respectfully submit that, absent such a *prima facie* showing as required by the MPEP, any rejection on Daberko, Matthews, and Bala must fail.

## **2. Daberko, Matthews, and Bala can't be physically and operatively combined.**

Even if one wanted to combine these references, it would not be technically feasible to do so because Daberko, Matthews, and Bala solve different problems, take different approaches, and have very different user interfaces. Refer to the discussion in the section "The Daberko, Matthews, and Bala Combination Is Not Justified" above.

## **3. Even if Daberko, Matthews, and Bala could be legally and physically combined, the independent claims would still recite novel subject matter over the combination.**

Even if it were legally permissible to combine the references, applicants' claims would still be novel and provide unexpected results over the combination of the references. The first independent claim, claim 32, recites novel subject matter over the combination of Daberko, Matthews, and Bala.

- Applicants' claim 32 recites "inserting a predetermined sound marker into said recorded stream of sound, said predetermined sound marker being distinguishable from the sound in said recorded stream".

Daberko inserts a message within another message. When the resulting message is played back, the user is not aware that the resulting message contains an included message. Refer to the section "Daberko" above. Applicants' Sound Annotation System inserts a marker of sound or glyph into a recorded stream of sound but the objective for the marker of sound or glyph is quite different from Daberko. When the marker of sound is reached during playback, Applicants' Sound Annotation System is paused allowing the user to determine whether to listen to the annotation of sound that is linked to the marker of sound or glyph. Refer to the section "Applicants' Sound Annotation System" above.

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Matthews provides for the insertion of markers in the audio file while it is being translated to a digital format. When the audio file is played back, a user is limited to only listening to the playback. Refer to the section "Matthews" above. With Applicants' Sound Annotation System a marker of sound is inserted into the recorded stream of sound at a relevant point with the content of the recorded stream of sound. The marker of sound or glyph is linked with an annotation of sound. During playback and when the marker of sound or glyph is reached, Applicants' Sound Annotation System is paused allowing the user the opportunity to choose whether to listen to the annotation of sound. Refer to the section "Applicants' Sound Annotation System" above.

Bala makes no mention of inserting a message or a marker within a message or audio file. Refer to the section "Bala" above.

- Applicants' claim 32 recites "providing a recorded sound annotation".  
Daberko, Matthews, and Bala make no mention of a recorded sound annotation. Refer to the sections "Daberko", "Matthews", and "Bala" above.
- Applicants' claim 32 recites "providing a user-operable link between said predetermined sound marker and said recorded sound annotation so that when said predetermined sound marker is reached during playback of said recorded stream of sound, a user can elect to hear said recorded sound annotation".  
Daberko and Bala make no mention of a marker or sound or glyph or a sound annotation and therefore no concept of choosing whether to listen to optional recordings. Refer to the sections "Daberko" and "Bala" above.  
Matthews provides for the insertion of markers into the digital audio recording during translation. This marker can be heard during playback. However, Matthews' marker can only be heard. There is no concept of annotations of sound or pausing the system to give the user a choice whether to listen to additional audio recordings. Refer to the section "Matthews" above.

The second independent claim, claim 39, recites novel subject matter over the combination of Daberko, Matthews, and Bala.



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- Applicants' claim 39 recites "...said computer system comprising: 1) a recorded stream of sound, 2) at least one recorded marker of sound, comprising a predetermined sound inserted into said recorded stream of sound, said predetermined sound being distinguishable from other sound in said recorded stream of sound, 3) a separately created and recorded sound annotation, said marker of sound providing a user-operable connection or link to said sound annotation so that when said marker of sound is reached during playback of said stream of sound, a user can elect to hear said recorded sound annotation".  
Daberko inserts a message within another message. During playback the resulting message can be heard by the user without knowing that a message was previously inserted. Daberko has no concept of sound annotations, markers of sound or glyphs, and user selection whether to listen to additional messages. Refer to the section "Daberko" above.  
While translating an analog audio file to a digital audio file, Matthews enables users to insert markers. During playback these markers can be heard by the listener. Matthews has no concept of sound annotations or pausing the system to optionally allow the user to listen to another recorded audio file. Refer to the section "Matthews" above.  
Bala has no concept of markers of sound or glyphs and of sound annotations. Refer to the section "Bala" above.

The third independent claim, claim 47, recites novel subject matter over the combination of Daberko, Matthews, and Bala.

- Applicants' claim 47 recites "...comprising: a. means for recording a stream of sound, b. means for inserting at least one marker or glyph into said stream of sound, said marker or glyph having a predetermined frequency, c. means of recording at least one sound annotation, d. means for associating said annotation of sound with said marker or glyph so that when said stream of sound is played and said marker or glyph is reached, said sound annotation can be selectively played".

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Daberko inserts a message into another message. When the resulting message is played back the listener can hear the resulting message without knowledge that a message had been inserted within it. Daberko has no concept of markers of sound or glyphs, sound annotations, or pausing the system allowing a user the opportunity to select whether to listen to additional messages. Refer to the section "Daberko" above.

During the translation of an analog audio file to a digital audio file Matthews provides for users to insert markers. During playback these markers can only be heard by the user. Matthews has no concept of sound annotations or pausing the system to allow the user the opportunity to choose to listen to additional audio files. Refer to the section "Matthews" above.

Bala has no concept of markers of sound or glyphs, sound annotations. Refer to the section "Bala" above.

The fourth independent claim, claim 53, recites novel subject matter over the combination of Daberko, Matthews, and Bala.

- Applicants' claim 53 recites "...comprising: a. means for recording a stream of sound, b. means for inserting at least one marker or glyph into said stream of sound, said marker or glyph having a predetermined frequency, c. means of recording at least one sound annotation, d. means for associating said annotation of sound with said marker or glyph so that when said stream of sound is played and said marker or glyph is reached, said sound annotation can be selectively played".

Daberko inserts a message within another message. During playback the resulting message is heard by the user without knowledge that a message had been inserted. Daberko has no concept of markers of sound or glyphs, sound annotations, and pausing the system to allow the user to select whether to listen to additional messages. Refer to the section "Daberko" above.

Matthews provides for the insertion of markers during the translation of an analog audio file into a digital audio file. During playback the markers can be heard by

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the listeners. Matthews has no concept of sound annotations or of pausing the playback to allow the user to choose to listen to additional audio files. Refer to the section "Matthews" above.

Bala has no concept of markers of sound or glyphs or sound annotations. Refer to the section "Bala" above.

#### **4. The Novel Subject Matter of the Independent Claims Produces New and Unexpected Results and is Therefore Unobvious.**

The novel features of the independent claims produce new and unexpected results. The previously identified unexpected results which are unobvious are repeated here for the convenience of the Examiner:

- **Pause-ability and Opportunity to Hear Annotation.** When a marker of sound or glyph is reached during playback of a stream of sound, the system can pause the playback and allow the user the opportunity to select whether the associated annotation of sound is interesting, relevant, or appropriate for the user.
- **Sound Annotation Nesting.** Because annotations of sound are also streams of sound, further annotations of sound can also be added to them thereby creating sound annotation nesting or a hierarchy of streams of sound and annotations of sound and further reducing the sound information that is interesting, relevant, or appropriate for a user to listen to.
- **Navigational Capabilities.** Because the system provides the capability of identifying markers of sound or glyphs, the system can skip to the next marker of sound or sound glyph without listening to the intervening stream of sound or can skip to the end of an annotation of sound, thereby providing flexibility and efficiency.
- **System Tailoring.** Because of the flexibility of the basic constructs, the system is able to provide for system administrators or users, if appropriate, to tailor the system through user-defined operational parameters thereby tailoring the system to meet user needs and requirements.

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- **Unidirectional and Bidirectional Communication and Collaboration.**  
Because of the flexibility of the basic constructs, the system is able to provide for both unidirectional and bidirectional communication and collaboration.
- **Security Protection, and Distribution and Access.** Because of the flexibility of the basic constructs, the system is able to provide for inclusion of security for inclusion of both classified and unclassified information, and the authorized distribution of or access to the streams of sound along with the appropriate annotations of sound to authorized users.

Therefore applicants submit that the independent claims recite novel and unobvious subject matter over the proposed combination of the references. Applicants therefore submit that the independent claims should be allowed.

The dependent claims incorporate all of the subject matter of the independent claims and add additional subject matter and therefore are a fortiori patentable over **Daberko and Matthews, and Bala.**

Therefore applicants submit that allowance of claims 32 to 59 is warranted and they respectfully request same.

## **The Rejection Of Claims 6, 14, 22, And 28 On Daberko, Matthews, Bala, And Nakamura et al (Nakamura) Is Overcome**

These dependent claims incorporate all of the limitations of the independent claims discussed above and add additional limitations. Therefore these claims are a fortiori patentable. For a review of Daberko, Matthews, and Bala refer to the sections "Daberko", "Matthews", and "Bala" above.

**Nakamura**

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Nakamura shows a document editing system for adding and managing speech or audio information to text information. While Nakamura adds speech or audio information to text, Applicants' Sound Annotation System adds sound information to a recorded stream of sound. Applicants' Sound Annotation System inserts markers of sound or glyphs to a recorded stream of sound at a relevant point in the stream of sound. The markers of sound link with annotations of sound. During playback when a marker of sound or glyph is reached, the system is paused and the user chooses whether to listen to the associated annotation of sound.

The Examiner cited Nakamura to show use of a password to gain access to the editing system. Obviously, Nakamura is not the only system or implementation to include some form of security. Security is recited in some of Applicants' dependent claims to claim the embodiment of Applicants' Sound Annotation System that uses security.

## **Applicants' New Claims Are Patentable Over Nakamura Individually**

Although the applicants recognize that these claims were rejected on a combination of four references, it is first worth noting that their new claims are patentable over Nakamura individually for the following reasons.

Applicants' independent claims recite novel subject matter over Nakamura because the claims recite that markers of sound or glyphs are inserted in a recorded stream of sound, and annotations of sound are linked to the markers of sound or glyphs. When a marker of sound or glyph is reached during playback, the Applicants' Sound Annotation System is paused to allow the user the opportunity to select whether to listen to the associated annotations of sound. Nakamura, on the other hand, shows only adding and managing speech or audio information to text information. For a more detailed discussion of these and other capabilities offered by Applicants' Sound Annotation System refer to the section "Applicants' Sound Annotation System" above.

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This novel subject matter in Applicants' Sound Annotation System produces new and unexpected results and is therefore unobvious over Nakamura. A discussion of the new and unexpected results when compared to Daberko, Matthews, and Bala are above. These new and unexpected results are also applicable to Nakamura.

## **Applicants' New Claims Are Patentable Over The References As Proposed To Be Combined**

Applicants submit that all of their new claims are patentable over the proposed combination of the above four references for the reasons discussed above and because it would not be obvious to combine Nakamura with the other three references.

### **1. There is no legal justification for combining the references.**

There is no reason in Nakamura to suggest its combination with the other three references, i.e., there is no *prima facie* case of obviousness to support the proposed combination.

The above section which discusses the lack of justification for the combination of Daberko, Matthews, and Bala also applies to the combination of Nakamura with these three references.

#### **a. The References Themselves Must Suggest or Motivate the Combination**

As stated, there must be some suggestion or motivation *in the references themselves* or in knowledge generally available to combine their teachings. The present rejection does not state any such teaching or knowledge and the references themselves contain none.

Nakamura shows a system which is complete and fully operative of itself and there is no suggestion or teaching in Nakamura that this system could be used with systems such as Daberko, Matthews, and Bala.

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Just because the four references identify inserting a message within a message, inserting a marker into audio data, identify indexes to segments of individual speakers, and add and manage speech and audio information to text, do not justify or teach combining them. Combining the four references is not logical conceptually or in an implementation.

Further legal discussion referring to the combination of references is above.

**b. An Expectation of Success Must Exist**

Nakamura is an editing system to add and manage speech and audio information to text information. If Nakamura is added to Daberko, Matthews, and Bala and if an audio engineer had these references before her, she would not be at all led to combine them, absent applicants' teachings.

**c. The References Must Teach or Suggest All of the Claim Limitations.**

Even if Nakamura were combined with the other three references, the claims would still recite novel structure over the combination. Above specific citations have been quoted from the four independent claims. Against these same citations, Nakamura can be added to the same discussion. Refer to the above discussion. Nakamura simply adds and manages speech and audio information with text information. Nakamura makes no mention of markers of sound or glyphs, annotations of sound, and therefore no linking of annotations of sound with markers of sound or glyphs or pausing the system to allow users the opportunity to select whether they want to listen to additional sound information.

Additional legal implications concerning the proposed combination are included above.

**2. Daberko, Matthews, Bala, and Nakamura can't be physically and operatively be combined.**

Previous discussion describes why Daberko, Matthews, and Bala can't be physically and operatively combined. Even if one wanted to combine Nakamura with the other three

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references, it would not be possible to do so physically or operatively because the addition of Nakamura does not make the combination physically and operatively possible. Nakamura shows a document editing system for adding and managing speech or audio information to text information. Nakamura solves a different problem, takes a different approach, and has a different user interface.

### **3. The Novel Subject Matter of these Independent Claims Produces New and Unexpected Results and is Therefore Unobvious.**

As identified above, Nakamura has no concept of the basic constructs of Applicants' Sound Annotation System; therefore all of the new and unexpected results identified above are also applicable to Nakamura.

Therefore applicants submit that the independent claims recite novel and unobvious subject matter over the proposed combination of the references. Applicants therefore submit that the independent claims should be allowed.

The dependent claims incorporate all of the subject matter of the independent claims and add additional subject matter and therefore are a fortiori patentable over Daberko and Matthews, and Bala, and Nakamura.

Therefore applicants submit that allowance of claims 32 to 59 is warranted and they respectfully request same.

### **The Rejection Of Claims 16-17 And 30-31 On Daberko, Matthews, Bala, And Logan et al (Logan) Is Overcome**

These dependent claims incorporate all of the limitations of the independent claims discussed above and add additional limitations. Therefore these claims are a fortiori



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patentable. For a review of Daberko, Matthews, and Bala refer to the sections "Daberko", "Matthews", and "Bala" above.

### **Logan**

Logan's system collects, distributes, and exchanges information in the form of audio recordings. A user can identify their interests and preferences, and recordings matching the criteria can be distributed to the user. Users can also comment on the recordings. Applicants' Sound Annotation System is different from Logan's because Logan does not utilize markers of sound or glyphs or the linking of them to sound annotations.

The Examiner cited Logan due to its reference to personal information and programming preferences, and playback parameters. However, Logan merely enables users to identify their preferences; Applicants' Sound Annotation System provides a much more extensive tailoring capability. For example, Applicants' Sound Annotation System allows tailoring for individual needs or requirements but also allows for system-wide tailoring to meet the needs of a company, an installation, a group, etc. Obviously Logan is not the only system or implementation to include some form of user preference, or system or user tailoring. The predefined logic or conditions and user-defined operational parameters are recited in these dependent claims but it would not be obvious to combine Logan with the other references, but even if combined, the claims would still define novel and patentable subject matter.

## **Applicants' New Claims Are Patentable Over Logan Individually**

Although applicants recognize that these claims were rejected on a combination of four references, it is first worth noting that their new claims are patentable over Logan individually for the following reasons:

Applicants' independent claims recite novel subject matter over Logan because they recite that markers of sound or glyphs inserted in a recorded stream of sound, and

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annotations of sound that are linked to the markers of sound or glyphs. Logan has no concept of markers of sound or glyphs and annotations of sound, and therefore no concept of linking between the two, but rather has only a system which collects, distributes, and exchanges information in the form of audio recordings. When a marker of sound or glyph is reached during playback, these features of the Applicants' Sound Annotation System allow the system to pause and allow the user to select whether to listen to the associated annotations of sound. For a more detailed discussion of these and other capabilities offered by Applicants' Sound Annotation System refer to the section "Applicants' Sound Annotation System" above.

This novel subject matter in Applicants' Sound Annotation System produces new and unexpected results and is therefore unobvious over Logan for reasons discussed above with regards to the other references.

## **Applicants' New Claims Are Patentable Over The References As Proposed To Be Combined**

Applicants submit that all of their new claims are patentable over the proposed combination of the above four references for reasons discussed above and because it would not be obvious to combine Logan with the other three references.

### **1. There is no legal justification for combining the references.**

There is no reason in Logan to suggest its combination with the other three references, i.e., there is no prima facie case of obviousness to support the proposed combination.

The above section which discusses the lack of justification for the combination of Dabeko, Matthews, and Bala also applies to the combination of Logan with the other three references.

#### **a. The References Themselves Must Suggest or Motivate the Combination**

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As stated, there must be some suggestion or motivation *in the references themselves* or in knowledge generally available to combine their teachings. The present rejection does not state any such teaching or knowledge and the references themselves contain none.

Logan shows a system which is complete and fully operative of itself and there is no suggestion or teaching in Logan that this system could be used with systems such as Daberko, Matthews, and Bala.

Just because the four references identify inserting a message within a message, inserting a marker into audio data, identify indexes to segments of individual speakers, and add and manage speech and audio information to text, do not justify or teach combining them. Combining the four references is not logical conceptually or in an implementation.

Further legal discussion referring to the combination of references is above.

#### **b. An Expectation of Success Must Exist**

Logan provides for a system to collect, distribute, and exchange information in the form of audio recordings. If Logan is added to Daberko, Matthews, and Bala and if an audio engineer had these references before her, she would not be at all led to combine them, absent applicants' teachings.

#### **c. The References Must Teach or Suggest All of the Claim Limitations.**

Even if Logan were combined with the other three references, the claims would still recite novel structure over the combination. Above specific citations have been quoted from the four independent claims. Against these same citations, Logan can be added to the same discussion. Refer to the above discussion. Logan simply collects, distributes, and exchanges information in the form of audio recordings. Logan makes no mention of markers of sound or glyphs, annotations of sound, and therefore no linking of annotations sound with markers of sound or glyphs or pausing the system to allow users the opportunity to select whether they want to listen to additional sound information.

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Additional legal implications concerning the proposed combination are included above.

## **2. Daberko, Matthews, Bala, and Logan can't be physically and operatively be combined.**

Previous discussion describes why Daberko, Matthews, and Bala can't be physically and operatively combined. Even if one wanted to combine Logan with the other three references, it would not be possible to do so physically or operatively because the addition of Logan does not make the combination physically and operatively possible. Logan shows a system that collects, distributes, and exchanges information in the form of audio recordings. Logan solves a different problem, takes a different approach, and has a different user interface.

## **3. The Novel Subject Matter of the Independent Claims Produces New and Unexpected Results and is Therefore Unobvious.**

As identified above, Logan has no concept of the basic constructs of Applicants' Sound Annotation System; therefore all of the new and unexpected results identified above are also applicable to Logan.

Therefore, applicants submit that the independent claims recite novel and unobvious subject matter over the proposed combination of the references. Applicants therefore submit that the independent claims should be allowed.

The dependent claims incorporate all of the subject matter of the independent claims and add additional subject matter and therefore are a fortiori patentable over Daberko and Matthews, and Bala, and Logan.

Therefore applicants submit that allowance of claims 32 to 59 is warranted and they respectfully request same.

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## Conclusion

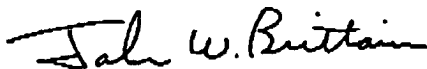
For the above reasons, applicants submit that the claims as amended are patentable over all of the cited references, taken either singly or in combination, because (a) there is no teaching or prima facie case that the refs should be combined, but (b) even if they were combined, the combination would not show the invention as claimed and the novel claim features are unobvious and patentable.

Accordingly applicants submit that allowance of claims 32 to 59 is warranted and respectfully request such action.

## Conditional Request For Constructive Assistance

Applicants have made a diligent effort to amend the claims of this application so that they define novel structure that is also unobvious. If, for any reason the Examiner believes claims of this application are not believed to be in full condition for allowance, applicants respectfully request the constructive assistance and suggestions of the Examiner pursuant to the spirit of MPEP § 2173.02 and § 707.07(j). This will enable the undersigned to place this application in allowable condition as soon as possible and without the need for further proceedings. Applicants authorize the Examiner to make any minor corrections.

Very respectfully,



John W. Brittain



Thomas J. Eccles

Applicants Pro Se

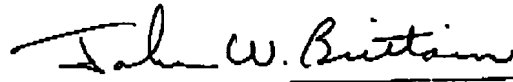
C/o John W. Brittain  
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1-408-867-5160

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Date: 2005 August 24



Joint Applicant

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